With Tom Moore, my colleagues Valery Smirnov and Levon Avanov we are undertaking analysis of the high-latitude dayside magnetopause crossings. Selection is made on the ground of availability of SCA-1 fast (10 sec resolution) 3D ion measurements. Preliminary consideration shows that this magnetopause region is reach in anomalous plasma flows (significantly deviating from surrounding magnetosheath flow direction).

One of these SCA-1 data sets (may 28, 1996) was analyzed by Levon Avanov and Valery Smirnov in cooperation with Hunter Waite, Steve Fuselier, and myself, and the paper is in preparation. Separate analysis of these SCA-1 data was performed by Ian Krauklis.

Initial results of this study will be presented at Huntsville 2000 Workshop (see submitted abstract, file abstract.doc).

With the help of Valery and Levon I prepared a list (file Dayside-HLMP96-7.RTF) with available fast ion data for 1996 and 1997 high-latitude dayside magnetopause crossings (altogether 40 crossings). 6 examples of crossings are in accompanying files. Please, note, that calculated ion flow parameters are preliminary and need corrections.

We are now continue create data base that will include Interball magnetic field measurements and WIND data. Polar data and magnetospheric convection data will be valuable additions to this data set.

With this study we hope to get more clear picture of plasma bulk motions in this region (that is more favorable for observation of reconnected flux tubes) and, possibly, receive additional information on the location of reconnection sites for different IMF conditions.

We welcome suggestions, comments, and participation.